In the Claims:

Please amend the claims as shown in the following listing of claims, which will replace all prior versions and listings of claims in the application.

1. (Currently Amended) Apparatus for controlling ~~a plurality of~~ detonators comprising:

a central command station ~~adapted to transmit one or more~~ for transmitting at least one command ~~signals~~ signal;

~~one or more~~ at least one blasting ~~machines~~ machine in signal communication with both the central command station and ~~a~~ at least one group of detonators, ~~each~~ said at least one blasting machine ~~including means for generation of~~ being able to (a) generate a data package comprising a randomly generated access code, ~~means for receiving one or more~~ (b) receive at least one command ~~signals~~ signal and ~~one or more~~ at least one data ~~packages~~ package transmitted by the central command station, and ~~means for comparing~~ (c) compare generated and received data packages; and

~~one or more~~ at least one authorization ~~keys~~ key ~~adapted for: (a) physical association~~ physically associatable with ~~one or more~~ said at least one blasting machine, ~~(b)~~ for direct transfer to and storage of ~~each~~ said at least one data package, and ~~(c) physical transfer~~ physically transferable from ~~the one or more~~ said at least one blasting ~~machines~~ machine to the central command station for delivery of ~~the stored~~ said at least one data ~~package(s)~~ package to the central command station; ~~whereby~~ wherein the central command station, after receiving ~~the~~ said at least one data ~~package(s)~~ package from ~~the~~ said at least one authorization ~~key(s)~~ key transmits ~~one or more~~ the at least one command ~~signals~~ signal and ~~the~~ said at least one data ~~package(s)~~ package to ~~the~~ said at least one blasting ~~machine(s)~~ machine, whereupon ~~any one~~ said at least one blasting machine responds to said ~~one or more~~ at least one command ~~signals~~ signal only if ~~one of the~~ a data ~~packages~~ package received from the central command station is the same as the data package originally generated by ~~said any one~~ said at least one blasting machine.

2.   (Currently Amended) The apparatus according to claim 1, wherein ~~any one~~ said at least one data package further comprises a unique identification code corresponding to the blasting machine that generated ~~said any one~~ said at least one data package.

3.   (Currently Amended) The apparatus according to claim 1, wherein the central command station transmits ~~the~~ said at least one data ~~package(s)~~ package and ~~the~~ said at least one command ~~signal(s)~~ signal to ~~the~~ said at least one blasting ~~machine(s)~~ machine simultaneously.

4.   (Currently Amended) The apparatus according to claim 1, wherein the central command station transmits ~~the~~ said at least one data ~~package(s)~~ package and ~~the~~ said at least one command ~~signal(s)~~ signal to ~~the~~ said at least one blasting ~~machine(s)~~ machine sequentially.

5.   (Currently Amended) The apparatus according to claim 1, wherein the central command station further includes encryption means, and ~~each~~ said at least one blasting machine further includes descrambling means, so that ~~the one or more~~ said at least one command ~~signals~~ signal ~~and /~~ or ~~the one or more transmitted~~ said at least one data ~~packages~~ package or both said at least one command signal and said at least one data package are encrypted by the encryption means upon transmission from the central command station, and descrambled by the descrambling means upon receipt by ~~each~~ said at least one blasting machine.

6.   (Currently Amended) The apparatus according to claim 5, wherein ~~the one or more~~ said at least one command ~~signals~~ signal ~~and /~~ or ~~the one or more~~ said at least one data ~~packages~~ package or both said at least one command signal and said at least one data package are encrypted by 32 bit encryption.

7.   (Currently Amended) The apparatus according to claim 1, wherein the randomly generated access ~~codes are~~ code of said at least one data package is active for a single blasting event.

8. (Currently Amended) The apparatus according to claim 1, wherein the randomly generated access ~~codes are~~ code of said at least one data package is active within a predetermined time window, outside of which ~~the one or more~~ said at least one blasting ~~machines~~ machine will not respond to ~~the one or more~~ said at least one command ~~signals~~ signal and ~~the one or more~~ said at least one data ~~packages~~ package transmitted by said central command station.

9. (Currently Amended) The apparatus according to claim 1, wherein the central command station is located remote from ~~the one or more~~ said at least one blasting ~~machines~~ machine and said detonators.

10. (Currently Amended) The apparatus according to claim 9, wherein ~~the one or more~~ said at least one blasting ~~machines~~ machine and the central command station are in radio-signal communication.

11. (Currently Amended) The apparatus according to claim 1, wherein ~~the one or more~~ said at least one group of detonators ~~are~~ is in signal communication with ~~the one or more~~ said at least one blasting ~~machines~~ machine via low energy detonation cord, shock tube, or electrical connection.

12. (Currently Amended) The apparatus according to claim 1, wherein ~~the one or more~~ said at least one authorization ~~keys~~ key comprises a single authorization key transferable between ~~the one or more~~ said at least one blasting ~~machines~~ machine for storing ~~each of the one or more~~ said at least one data ~~packages~~ package.

13. (Currently Amended) The apparatus according to claim 1, wherein ~~the~~ said at least one command ~~signals include~~ signal is selected from the group consisting of ARM, FIRE, ~~or~~ and DISARM signals.

14. (Currently Amended) The apparatus according to claim 13, wherein ~~the~~ each FIRE ~~signals are~~ signal is specific for each detonator or each group of detonators, each FIRE signal

including a delay component to specify a firing delay for each detonator or each group of detonators thereby determining a firing sequence for the detonators.

15.   (Currently Amended) The apparatus according to claim 1, further comprising:

a master key including a memory for storing detonator firing codes;

wherein ~~each of~~ said detonators ~~includes a~~ include built-in firing ~~code~~ codes, and association of said master key with said central command station permits transfer of stored detonator firing codes to said central command station for transmission to ~~said one or more~~ said at least one blasting ~~machines~~ machine, ~~said one or more~~ said at least one blasting ~~machines~~ machine ~~each including means for relaying~~ being able to relay said detonator firing codes to said detonators, ~~any one~~ said at least one blasting machine relaying said detonator firing codes and said at least one command ~~signals~~ signal only if ~~one of the~~ a data ~~packages~~ package received from the central command station is the same as the data package originally generated by ~~said any one~~ said at least one blasting machine, ~~each detonator~~ said detonators firing only if ~~one of~~ said ~~relayed~~ detonator firing codes relayed from an associated blasting machine ~~is~~ are the same as said built-in firing ~~code~~ codes for ~~said any one detonator~~ said detonators.

16.   (Currently Amended) A method of controlling ~~a plurality of~~ detonators, the method comprising the steps of:

(a) providing a central command station ~~adapted to transmit~~ for transmitting at least one command ~~signals~~ signal;

(b) providing ~~one or more~~ at least one blasting ~~machines each~~ machine in signal communication with ~~a~~ at least one group of detonators and the central command station, said at least one blasting machine being able to (i) generate a data package comprising a randomly generated access code, (ii) receive at least one command signal and at least one data package transmitted by the central command station, and (iii) compare generated and received data packages;

(c) generating a data package in each blasting machine, ~~each data package~~ comprising a randomly generated access code;

(d) providing ~~one or more~~ at least one authorization ~~keys each authorization key adapted~~

for: (a) physical association ~~key physically associatable~~ with ~~one or more~~ said at least one blasting machine, ~~(b)~~ for direct transfer to and storage of ~~each~~ said at least one data package, and ~~(c) physical transfer~~ physically transferable from ~~the one or more~~ said at least one blasting ~~machines~~ machine to the central command station for delivery of ~~the stored~~ said at least one data ~~package(s)~~ package to the central command station;

(e) transferring ~~each~~ said at least one authorization key from said ~~one or more~~ at least one blasting ~~machines~~ machine to said central command station;

(f) inputting ~~each~~ said at least one data package from said ~~one or more~~ at least one authorization key to said central command station; and

(g) transmitting ~~one or more~~ said at least one command ~~signals~~ signal together with said ~~one or more~~ at least one data ~~packages~~ package from said central command station to said ~~one or more~~ at least one blasting ~~machines~~ machine, ~~any one~~ said at least one blasting machine responding to said ~~one or more~~ at least one command ~~signals~~ signal only if ~~one of the~~ a data ~~packages~~ package received from the central command station is the same as the data package originally generated by ~~said any one~~ said at least one blasting machine.

17.   (Currently Amended) The method according to claim 16, wherein ~~any one~~ said at least one data package further comprises a unique identification code corresponding to the blasting machine that generated ~~said any one~~ said at least one data package.

18.   (Currently Amended) The method according to claim 16, wherein in step (g) the central command station transmits ~~the~~ said at least one data ~~package(s)~~ package and ~~the~~ said at least one command ~~signal(s)~~ signal to ~~the~~ said at least one blasting ~~machine(s)~~ machine simultaneously.

19.   (Currently Amended) The method according to claim 16, wherein in step (g) the central command station transmits ~~the~~ said at least one data ~~package(s)~~ package and ~~the~~ said at least one command ~~signal(s)~~ signal to ~~the~~ said at least one blasting ~~machine(s)~~ machine sequentially.

20.   (Currently Amended) The method according to claim 16, wherein in step (g) ~~the one or more~~ said at least one command ~~signals and /~~ signal or ~~the one or more transmitted~~ said at least one data ~~packages~~ package, or both said at least one command signal and said at least one data package are encrypted upon transmission by the central command station, and descrambled upon receipt by ~~each~~ said at least one blasting machine.

21.   (Currently Amended) The method according to claim 20, wherein in step (g) ~~the one or more~~ said at least one command ~~signals and /~~ signal or ~~the one or more~~ said at least one data ~~packages~~ package, or both said at least one command signal and said at least one data package are encrypted by 32 bit encryption.

22.   (Currently Amended) The method according to claim 16, wherein the randomly generated access ~~codes are~~ code of said at least one data package is active for a single blasting event.

23.   (Currently Amended) The method according to claim 16, wherein the randomly generated access ~~codes are~~ code of said at least one data package is active within a predetermined time window, outside of which ~~the~~ said at least one blasting machine will not respond to said ~~one or more~~ at least one command ~~signals~~ signal and said ~~one or more~~ at least one data ~~packages~~ package transmitted by said central command station.

24.   (Currently Amended) The method according to claim 16, wherein the central command station is located remote from said ~~one or more~~ at least one blasting ~~machines~~ machine and said ~~one or more~~ detonators.

25.   (Currently Amended) The method according to claim 24, wherein ~~the one or more~~ said at least one blasting ~~machines~~ machine and the central command station are in radio-signal communication.

26. (Currently Amended) The method according to claim 16, wherein ~~each~~ said at least one group of detonators is in signal communication with ~~each~~ said at least one blasting machine via low energy detonation cord, shock tube, or electrical connection.

27. (Currently Amended) The method according to claim 16, wherein ~~the one or more~~ said at least one authorization ~~keys~~ key comprises a single authorization key transferable between ~~the one or more~~ said at least one blasting ~~machines~~ machine and the central command station for storing ~~each of the one or more~~ said at least one data ~~packages~~ package.

28. (Currently Amended) The method according to claim 16, wherein in step (g) ~~the one or more~~ said at least one command ~~signals include~~ signal is selected from ARM, FIRE, ~~or~~ and DISARM signals.

29. (Currently Amended) The method according to claim 28, wherein in step (g) ~~the~~ each FIRE ~~signals are~~ signal is specific for each detonator or each group of detonators, each FIRE signal including a delay component to specify a firing delay for each detonator or each group of detonators thereby determining a firing sequence for the detonators.

30. (Currently Amended) A method of controlling initiation of ~~a plurality of~~ detonators ~~each~~ having ~~a unique~~ built-in firing ~~code~~ codes, the method comprising the steps of:
      (a) providing a central command station for transmitting at least one command signal;
      (b) providing ~~one or more~~ at least one blasting ~~machines each~~ machine in signal communication both with ~~a~~ at least one group of detonators and the central command station, said at least one blasting machine being able to (i) generate a data package comprising a randomly generated access code, (ii) receive at least one command signal and at least one data package transmitted by the central command station, and (iii) compare generated and received data packages;
      (c) generating ~~a~~ at least one data package in ~~each~~ said at least one blasting machine, ~~each~~ said at least one data package comprising a randomly generated access code;
      (d) providing ~~one ore more~~ at least one authorization ~~keys each authorization key adapted~~

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for: ~~(a) physical association~~ key physically associatable with ~~one or more~~ said at least one blasting machine, ~~(b)~~ for direct transfer to and storage of ~~each~~ said at least one data package, and ~~(c) physical transfer~~ physically transferable from ~~the one or more~~ said at least one blasting ~~machines~~ machine to the central command station for delivery of ~~the stored~~ said at least one data ~~package(s)~~ package to the central command station;

(e) transferring ~~each~~ said at least one authorization key from said ~~one or more~~ at least one blasting ~~machines~~ machine to said central command station;

(f) inputting ~~each~~ said at least one data package from said ~~one or more~~ at least one authorization ~~keys~~ key to said central command station;

(g) providing a master key including a memory for storing detonator firing codes;

(h) transferring the detonator firing codes from the master key to the central command station; and

(i) transmitting ~~one or more~~ said at least one command ~~signals~~ signal, the detonator firing codes, and said ~~one or more~~ at least one data ~~packages~~ package from said central command station to said ~~one or more~~ at least one blasting ~~machines~~ machine, ~~any one~~ said at least one blasting machine relaying said detonator firing codes and said at least one command ~~signals~~ signal to ~~the associated~~ said detonators only if ~~one of the~~ a data ~~packages~~ package received from the central command station is the same as the data package originally generated by ~~said any one~~ said at least one blasting machine, ~~each detonator~~ the detonators firing only if ~~one of~~ said ~~relayed~~ detonator firing codes relayed from ~~an associated~~ said at least one blasting machine ~~is~~ are the same as said built-in firing ~~code~~ codes for ~~said any one~~ ~~detonator~~ said detonators.

31.   (Currently Amended) The method according to claim 30, wherein ~~any one~~ said at least one data package further comprises a unique identification code corresponding to the blasting machine that generated ~~said any one~~ said at least one data package.

32.   (Currently Amended) The method according to claim 30, wherein in step (i) the central command station transmits the detonator firing codes, ~~the~~ said at least one data ~~package(s)~~ package and ~~the~~ said at least one command ~~signal(s)~~ signal to ~~the~~ said at least one blasting ~~machine(s)~~ machine simultaneously.

33.   (Currently Amended) The method according to claim 30, wherein in step (i) the central command station transmits the detonator firing codes, ~~the~~ said at least one data ~~package(s)~~ package and ~~the~~ said at least one command ~~signal(s)~~ signal to ~~the~~ said at least one blasting ~~machine(s)~~ machine sequentially.

34.   (Original) The method according to claim 30, wherein the master key further stores user identification information for recognition by said central command station.

35.   (Currently Amended) The method according to claim 30, wherein the detonator firing codes comprise detonator identification codes ~~and /~~ or detonator delay times, or both detonator identification codes and detonator delay times.